



# DC COMPONENTS CO., LTD.

## DISCRETE SEMICONDUCTORS

### BC556

### TECHNICAL SPECIFICATIONS OF PNP EPITAXIAL PLANAR TRANSISTOR

#### Description

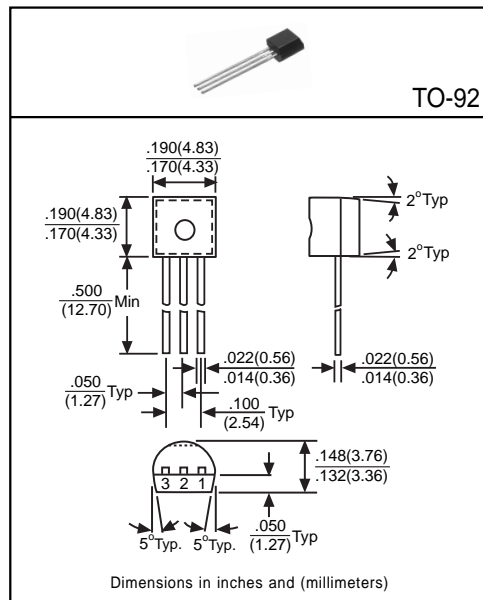
Designed for use in driver stage of audio amplifiers.

#### Pinning

- 1 = Collector
- 2 = Base
- 3 = Emitter

#### Absolute Maximum Ratings( $T_A=25^{\circ}\text{C}$ )

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	$V_{CB0}$	-80	V
Collector-Emitter Voltage	$V_{CE0}$	-65	V
Emitter-Base Voltage	$V_{EB0}$	-5	V
Collector Current	$I_C$	-100	mA
Total Power Dissipation	$P_D$	500	mW
Junction Temperature	$T_J$	+150	$^{\circ}\text{C}$
Storage Temperature	$T_{STG}$	-55 to +150	$^{\circ}\text{C}$



#### Electrical Characteristics

(Ratings at  $25^{\circ}\text{C}$  ambient temperature unless otherwise specified)

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Collector-Base Breakdown Voltage	$BV_{CB0}$	-80	-	-	V	$I_C=-100\mu\text{A}$ , $I_E=0$
Collector-Emitter Breakdown Voltage	$BV_{CE0}$	-65	-	-	V	$I_C=-1\text{mA}$ , $I_B=0$
Emitter-Base Breakdown Voltage	$BV_{EB0}$	-5	-	-	V	$I_E=-10\mu\text{A}$ , $I_C=0$
Collector Cutoff Current	$I_{CBO}$	-	-	15	nA	$V_{CB}=-30\text{V}$ , $I_E=0$
Collector-Emitter Saturation Voltage <sup>(1)</sup>	$V_{CE(sat)1}$	-	-	-300	mV	$I_C=-10\text{mA}$ , $I_B=-0.5\text{mA}$
	$V_{CE(sat)2}$	-	-	-650	mV	$I_C=-100\text{mA}$ , $I_B=-5\text{mA}$
Base-Emitter On Voltage	$V_{BE(on)1}$	-600	-	-750	mV	$I_C=-2\text{mA}$ , $V_{CE}=-5\text{V}$
	$V_{BE(on)2}$	-	-	-820	mV	$I_C=-10\text{mA}$ , $V_{CE}=-5\text{V}$
DC Current Gain <sup>(1)</sup>	$h_{FE}$	75	-	500	-	$I_C=-2\text{mA}$ , $V_{CE}=-5\text{V}$
Transition Frequency	$f_T$	-	300	-	MHz	$I_C=-10\text{mA}$ , $V_{CE}=-5\text{V}$ , $f=100\text{MHz}$
Output Capacitance	$C_{ob}$	-	4.5	-	pF	$V_{CB}=-10\text{V}$ , $f=1\text{MHz}$ , $I_E=0$

(1) Pulse Test: Pulse Width  $\leq 380\mu\text{s}$ , Duty Cycle  $\leq 2\%$

#### Classification of $h_{FE}$

Rank	A	B
Range	75~250	180~500